

**CLAIMS**

1. Method to optimise route selection in a communication system comprising branch points (A-F) of transmission links (L1-L9), the quality of each link being represented by topology parameters (TM, TA) divided into categories, whereby two of the branch points (B, E) have a set of multiple parallel links (L1, L2, L3) in-between, said method being characterised by the following steps:
- selecting among the set of parallel links (L1, L2, L3), the links having the most favourable topology parameter (TM, TA), each category;
  - aggregating the set of parallel links into an abstract link (SUPER) between the two branch points (B, E), the abstract link (SUPER) being represented by each categories most favourable topology parameter (TM, TA).
2. Method according to claim 1, the selection of the links having the best topology parameters comprising the following further steps:
- comparing all topology parameters for each category belonging to the set of parallel links;
  - storing of the best topology parameter value, each category.
3. Method to optimise route selection in a communication system having branch points (A-F) of transmission links (L1-L9), the quality of each link being represented by a

topology metric value (TM) and a topology attribute value (TA), said method being characterised by the following steps:

- 5       - selecting among a set of parallel links (L1, L2, L3) between two of the branch points (B, E), a link (L1) having the best topology metric value (TM);
- selecting among the set of parallel links (L1, L2, L3) between the two branch points (B, E), a link (L3) having the best topology attribute value (TA);
- 10      - aggregating the set of multiple links into an abstract link (SUPER) between the two branch points (B, E), the abstract link being represented by the best topology metric value (TM) and by the best topology attribute value (TA).
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- 4.      Method according to claim 1, the selection of the link having the best topology metric value comprising the following further steps:
  - 20       - comparing all topology metric values belonging to the set of parallel links;
  - storing of the best topology metric value (TM) among the values belonging to the set of parallel links.
- 25      5.      Method according to claim 1 or 2, the selection of the link having the best topology attribute value (TA) comprising the following further steps:
  - comparing all topology attribute values belonging to the set of parallel links;

- storing of the best topology attribute value among the values belonging to the set of parallel links.
- 5 6. Arrangement to optimise route selection in a communication system having branch points (A-F) of transmission links (L1-L9), the quality of each link being represented by topology parameters (TM, TA) within different categories, whereby two of the branch points (B, E) have a set of multiple parallel links (L1, L2, 10 L3) in-between, said arrangement being characterised by:
- means for selecting among the set of parallel links (L1, L2, L3), the links having the most favourable topology parameter (TM, TA), each category;
- 15 - means for aggregating the set of parallel links into an abstract link (SUPER) between the two branch points (B, E), the abstract link (SUPER) being represented by the most favourable topology parameter (TM, TA), each category.
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7. Arrangement according to claim 6, furthermore comprising:
- means for comparing all topology parameters for each category belonging to the set of parallel links;
- 25 - means for storing of the best topology parameter value, each category.